

**From:** [Rosenberg, Kathryn](#)  
**To:** [Pepin, Rob](#)  
**Subject:** RE: DTE Monroe Effluent Quality  
**Date:** Wednesday, June 23, 2021 3:14:00 PM

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Thanks so much, Rob!

I'll pull the ICIS data and also see if I can find ambient hardness, DOC, pH, critical effluent and ambient flows. I will keep you posted.

Best,

-Katie

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**From:** Pepin, Rob <[pepin.robert@epa.gov](mailto:pepin.robert@epa.gov)>  
**Sent:** Wednesday, June 23, 2021 11:48 AM  
**To:** Rosenberg, Kathryn <[Rosenberg.Kathryn@epa.gov](mailto:Rosenberg.Kathryn@epa.gov)>  
**Subject:** RE: DTE Monroe Effluent Quality

Hi Katie

I took a look at aluminum and magnesium. The problem is that Michigan does not have any WQC for either pollutant. EPA has a 304(a) for aluminum but it is a complicated WQC because it is DOC, hardness, and pH dependent which gives a complex toxicity curve. The range, according to the EPA Fact Sheet is 1-4800 acute and 0.6 to 3200 chronic (all in ug/L). Because the Analytical Report has the effluent concentration at 770 ug/L there is possibly an aluminum issue.

For magnesium Mount et al. in 1997 found the LC50 for *C. dubia* at 880 mg/L for MgCl<sub>2</sub> and 1770 mg/L for MgSO<sub>4</sub>. The Analytical Report has the effluent at 13 mg/L. So, I don't think magnesium is an issue.

As for other pollutants it will take some analysis. I note that copper (assuming hardness=100 mg/L CaCO<sub>3</sub>) is at the chronic WQC (WQC=9.3, effluent=9.4) but I note that the WQBEL memo suggests there is a dilution. (Also, I don't know what the actual hardness value is which can make a difference.)

If a facility discharges a pollutant for which the State does not already have a rule 57 WQC then I think the State's Part 8 rules require them to use rule 57 methods to calculate a numeric translator of the narrative WQC. If I am correct they should do this if there are pollutants for which already-calculated rule 57 values do not exist.

What does ICIS data say? If you want further analyses, I'd like to know what the ambient hardness, DOC, and pH values are. Also, I'd like to know what the critical effluent and ambient flows are. The WQBEL report doesn't give those.

In short I think some more in-depth review is needed. Hope this helps.

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**From:** Rosenberg, Kathryn <[Rosenberg.Kathryn@epa.gov](mailto:Rosenberg.Kathryn@epa.gov)>  
**Sent:** Thursday, June 17, 2021 10:45 AM  
**To:** Pepin, Rob <[pepin.robert@epa.gov](mailto:pepin.robert@epa.gov)>  
**Subject:** DTE Monroe Effluent Quality

Hi Rob,

Would you mind taking a glance at the effluent analytical report for DTE Monroe? I noticed that a few things (like aluminum and magnesium, for example) seemed a bit high and I'm not sure what

WQS exist for these parameters. Attached are the lab report and the WQBEL Memo for RPA information.

As far as timeline goes, if you could take a quick look and just flag if it's a potential issue by mid-next week, that would be great. The application for this facility was submitted in 2014 and permit has since been administratively continued, so that is why the lab report and WQBEL Memo are old.

Thanks!

**Katie Rosenberg** (she/her)

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